

What is Claimed is:

1. A composition for placement in a mammalian body comprising:
 - a) a prepolymeric material which thickens and/or solidifies *in situ* in the presence of a exogenous trigger; and
 - b) a sufficient amount of a rheological modifier to permit the composition to exhibit thixotropic behavior prior to completion of the thickening and/or solidifying the prepolymeric material.
2. The composition according to Claim 1, wherein said prepolymeric material is selected from the group consisting of acrylates, methacrylates, acrylamides, methacrylamides, styrenes, vinyl acetate and acrylonitrile.
3. The composition according to Claim 1 or Claim 2 wherein said exogenous trigger is selected from the group consisting of light, electromagnetic radiation, ultrasound, mechanical force, magnetic fields, heating or cooling, the introduction of a salt or catalyst, an acid or a base, and another reactive component.
4. The composition according to Claim 3, wherein the exogenous trigger is another reactive component.
5. The composition according to Claim 4, wherein the prepolymer and the other reactive component comprise a mixture of acrylates, methacrylates, acrylamides, methacrylamides, styrenes, vinyl acetate, acrylonitrile, with one another or with maleic acid, urethane, urethane carbonates, silicone or epoxy.

6. The composition according to Claim 1, wherein the rheological modifier is selected from the group consisting of non-particulate rheological modifiers, particulate rheological modifiers and mixtures thereof.

7. The composition according to Claim 6, wherein the particulate rheological modifier is selected from the group consisting of silacatious earths, bentonite, organoclays, water-swellaable clays, such as lapenite, and silicas such as fumed silica and precipitated, calcium carbonate, titanium dioxide, laminate, titanium oxide, zinc oxide, hydroxyappetite, carbon beads, dispersed fiber, magnetic materials and mixtures thereof.

8. The composition according to Claims 6, wherein the non-particulate rheological modifier is selected from the group consisting of polyacrylates, polyalkenes, polyalkyl oxides, polyamides, polycarbonates, cellulosic polymers and copolymers thereof, polydienes, polyesters, polymethacrylates, polysiloxanes, polystyrenes, polyurethanes, polyvinyl ethers, polyvinyl esters, Carbopol, acrylic polymers, cross-linked acrylic polymers, hydroxypropylcellulose, hydroxypropylmethylcellulose, oxidized polyethylene and their copolymers, polyethylene oxide, polyvinylpyrrolidone, associative thickeners, Carrageenan, carboxymethylcellulose, sodium hydroxyethylcellulose, hydroxyethylcellulose, methylcellulose, Guar, Guar derivatives, Locust Bean Gum, Xanthan Gum, and mixutres thereof .

9. The composition according to Claim 1, which further comprises a contrast agent.

10. The composition according to Claim 9, wherein the contrast agent is water insoluble.

11. The composition according to Claim 10, wherein the water insoluble contrast agent is selected from the group consisting of tantalum, tantalum oxide, tungsten, gold, platinum and barium sulfate.

12. The composition according to Claim 9, wherein the contrast agent is water soluble.

13. The composition according to Claim 12, wherein the water soluble contrast agent is selected from the group consisting of metrizamide, iopamidol, jothalamate sodium, jodamide sodium, and meglumine.

14. The composition according to Claim 1, wherein said composition further comprises one or more components selected from the group consisting of thickening agents, plasticizers, radioactive agents and surfactants.

15. The composition according to Claim 14, wherein said composition further comprises a radioactive agent in a sufficient amount to ablate tissue.

16. The composition according to Claim 15, wherein said radioactive agent is selected from the group consisting of ⁹⁰yttrium, ¹⁹²iridium, ¹⁹⁸gold, ¹²⁵iodine, ¹³⁷cesium, ⁶⁰cobalt, ⁵⁵cobalt, ⁵⁶cobalt, ⁵⁷cobalt, ⁵⁷magnesium, ⁵⁵iron, ³²phosphorous, ⁹⁰strontium, ⁸¹rubidium, ²⁰⁶bismuth, ⁶⁷gallium, ⁷⁷bromine, ¹²⁹cesium, ⁷³selenium, ⁷²selenium, ⁷²arsenic, ¹⁰³palladium, ²⁰³lead, ¹¹¹indium, ⁵²iron, ¹⁶⁷thulium, ⁵⁷nickel, ⁶²zinc, ⁶²copper, ²⁰¹thallium and ¹²³iodine.

17. The composition according to Claim 14, wherein said composition further comprises a medicament.

18. The composition according to Claim 17, wherein said medicament is selected from the group consisting of an angiogenesis inhibiting compound, a steroidal or non-steroidal anti-inflammatory agent, and a thrombotic agent.

19. A method for the site specific delivery of a composition into the body of a mammal which method comprises inserting a delivery device at a targeted site in the mammal and administering via the delivery device a composition according to Claim 1 under such conditions that a solid mass is formed *in vivo*.

20. A method for site specific vascular embolization via a catheter comprising proximal and distal ends wherein the method comprises inserting the distal end of the catheter in the selected vascular site of a mammal, delivering via the catheter a composition of Claim 1 to said vascular site under conditions wherein a mass is formed which embolizes the blood vessel.

21. A method for bulking tissue in a mammal which comprises inserting a delivery device into mammalian tissue, delivering via the device a composition according to Claim 1 under conditions wherein a solid mass is formed which bulks the tissue.

22. The method according to Claim 21 wherein tissue sites suitable for bulking are selected from the group consisting of the suburethral tissue, the periurethral tissue, soft tissue and sphincters.

23. A method for delivery of a composition comprising a medicament into a mammalian body which method comprises inserting an appropriate delivery device at a targeted site in the patient and then administering via the delivery device a composition according to Claim 17 under such conditions that a mass is formed *in vivo*.

24. A kit of parts comprising:

- a) a composition comprising a prepolymeric material which thickens and/or solidifies *in situ* in the presence of a exogenous trigger, a sufficient amount of a rheological modifier to permit the composition to exhibit thixotropic behavior, and optionally contrast agent; and
- b) a delivery device.